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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/667,301	09/25/2000	Hideo Watanabe	Q60969	1597

7590 03/15/2002
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2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 03/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/667,301

Applicant(s)

WATANABE ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

IDS

In regards to foreign references, the references have now been considered. The applicant should also note that the applications are not always available to the examiners at all times. The examiner may not have availability to applications during periods between the issue date and the printing date.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (USPN 5830085) in view of OFFICIAL NOTICE.

Higuchi et al. discloses the same subject matter except having a mantle layer having a Shore D hardness of 15 to 30, the core's surface hardness up to 85 JIS-C, and the mantle layer having a JIS-C hardness of up to 85. Higuchi et al. discloses the surface hardness of the core being less than 85 JIS-C, the hardness of less than 85 JIS-C, and the surface hardness of the core being higher than the center hardness of the core by 5 to 25. However, since the hardness ratios are approximately 1, it is submitted that the compression ratio is also about 1, i.e. approximately 0.98. Higuchi et al. also notes that the restitution would be affected if the intermediate layer exceeds 10

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or more than that of the surface hardness of the core (See Figure 1 and Column 4, lines 35 through 43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct a golf ball having an intermediate layer of any desired hardness, such as Shore D 15 to 40, for the purpose of routine optimization for obtaining the restitution desired for the golf ball.

OFFICIAL NOTICE is taken that resilient materials are those having high yield strengths and low moduli of elasticity ($E = \text{load} / \text{amount of deformation}$). The modulus of elasticity is known within the art to affect the golf ball's resilience, or restitution, and hitting feel; therefore, having a mantle deformation amount similar to that of the core would not provide any significant change to the restitution of the golf ball. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the compression ratio of the mantle similar to that of the core, as suggested by the OFFICIAL NOTICE to have a ratio, such as between the core and mantle layer, of any value, such as at least 0.98, for the purpose of routine optimization for obtain the resilience and hitting feel desired for the present invention.

Response to Arguments

Applicant's arguments filed January 28, 2002 have been fully considered but they are not persuasive. The applicant argues that Higuchi et al. does not teach the compression ratio of that claimed by the applicant and also accuses the examiner of using hindsight in reference to the OFFICE NOTICE. The examiner respectfully disagrees with the applicant.

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Higuchi et al. teaches substantially the same invention as that of the applicant. Unfortunately it must be noted that compression is also a form of expressing the stress and strain, or modulus of elasticity, especially when a ratio is taken, as has been done here. In MPEP 2144.01, it states "In considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom."; therefore, no hindsight was used.

The examiner agrees that Higuchi et al. does not teach the ratio claimed by the applicant, but Higuchi et al. was not used to teach the ratio as a whole, which was clearly seen in the previous office action.

In regards to the JP Application 2000-70412 listed in the IDS, 37 CFR 1.98 requires a legible copy of the application specification including claims, and any drawing of the application, or that portion of the application which is caused it to be listed including and claims directed to that portion. 37 CFR 1.98 must be satisfied in sections 1-5 and not just one of the five.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Callister, Jr. (Material Science and Engineering: An Introduction, 4th Edition), Sullivan et al. (USPN 5779561), and Kataoka et al. (USPN 4398000).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-

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5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell, can be reached on (703) 308-2126. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Paul T. Sewell
Supervisory Patent Examiner
Group 3700